

12770 Merit Drive, Suite 900 Dallas, Texas 75251 U.S.A. ■ (972) 661-8100 ■ Fax (972) 385-9203

AIR NSR_RN 100788959

Permit 7711A PA 2011 - 04 - 11

Application Project 163357

April 5, 2011

Rule Registrations Section, Air Permits Division

Mail Code 163

12100 Park 35 Circle, Building F, First Floor, Room 1206
Austin, TX 78753

6/30
1796
RECEIVED

APR 11 2011

AIR PERMITS DIVISION

Re: APD-CERT Submittal

*Building Materials Corporation of America. – Dallas Plant – Dallas County
TCEQ Account No. DB-0378-S, CN 602717464, RN 100788959*

RECEIVED

JUL 09 2015

**TCEQ
CENTRAL FILE ROOM**

To whom it may concern:

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) owns and operates an existing asphalt roofing production facility in Dallas, Texas (Dallas Plant). The Texas Commission on Environmental Quality (TCEQ) Account No. for the Dallas Plant is DB-0378-S. GAF operates under TCEQ Customer Reference Number (CN) 602717464, and the Dallas Plant operates under TCEQ Regulated Entity Number (RN) 100788959.

With this letter submittal, GAF would like to update the certification of volatile organic compound (VOC) and nitrogen dioxide (NO_x) emissions from all PBR sources at the Dallas Plant documenting the site-wide emissions are below the limit for ozone nonattainment new source review (NNSR) applicability. The supporting information required for the APD-CERT submittal are provided in Attachment A of this letter. Emission sources to be certified and their corresponding emission rates are listed in the attached APD-CERT form provided in Attachment B. Emissions calculations supporting the certified emissions rates are provided in Attachment C. Certified emission rate totals are provided at the bottom of the last page of the TCEQ APD-CERT Form in Attachment B.

This submittal includes the following:

- Supporting Information
- TCEQ Form APD-CERT
- Emission Calculations

If you have any questions regarding this submittal, please feel free to call me at (972) 661-8100 or Mr. Doug Harris of GAF at (214) 637-8909.

Sincerely,

TRINITY CONSULTANTS

A handwritten signature in black ink, appearing to read "Latha Kambham".

Latha Kambham
Senior Consultant

Attachments

cc: Mr. Tony Walker, TCEQ Regional Office 4
Mr. Joel Stanford, TCEQ Air Permits Division
Mr. Daniel R. Jamieson, TCEQ Air Dispersion Modeling Team
Mr. David Miller, City of Dallas, Air Pollution Control Program
Mr. Doug Harris, GAF
Mr. Fred Bright, GAF
Mr. David Fuelleman, GAF
Ms. Christine M. Otto Chambers, Trinity Consultants
Ms. Jacquie Hui, Trinity Consultants

ATTACHMENT A. SUPPORTING INFORMATION

1. BACKGROUND

GAF is a nationwide manufacturer of building material products. The GAF Dallas Plant manufactures asphalt shingles for the roofing industry and has two asphalt roofing lines at the GAF Dallas Plant: Line 1 and Line 3. The Dallas Plant operates under New Source Review (NSR) Permit No. 7711A, with additional support equipment authorized by Permit-by-Rule (PBR).

The GAF Dallas Plant is located in Dallas County, Texas. Dallas County is currently classified as a serious non-attainment area under the 8-hour ozone standard and an attainment or unclassified area for all other criteria pollutants.¹ Under this standard, a major source is defined as a source which has the potential to emit greater than 50 tons per year (tpy) of VOC or NO_x.

GAF submitted APD-CERT documentation with the NSR Permit Amendment Application dated December 18, 2008. As a part of the amendment application, GAF certified VOC and NO_x emissions from all PBR sources at the Dallas Plant in order to document that site-wide emissions were below the limit for ozone NNSR applicability. The GAF Dallas Plant is an existing minor source with respect to Ozone NNSR as documented in Table 1-1.

With this letter GAF is updating the certification for all of the PBR sources. Specifically, GAF is updating the maximum certified emission rates for NO_x for two heaters that will operate with Low NO_x burners. Details on the updated emissions certification is provided below in Section 2.

2. AIR AUTHORIZATIONS SUMMARY

The Dallas Plant was authorized to construct and operate two 4.65-MMBtu/hr natural gas fired heaters under Title 30 Texas Administrative Code (30 TAC) Section (§) 106.183 *Boilers, Heaters, and Other Combustion Devices*:

- Asphalt flux heater (HTR 7)
- Filled coating heat exchange heater (HTR 8)

These heaters were originally authorized without Low NO_x burners and included in the APD-CERT documentation submitted in the NSR Permit Amendment Application dated December 18, 2008. GAF is now certifying that both heaters will operate with Low NO_x burners.

¹ The DFW area has been reclassified by operation of law as a serious ozone nonattainment area for the 1997 8-hour ozone standard on January 19, 2011 per 75 FR 79302 (EPA Docket No. EPA-R06-OAR-2010-0412).

Table 1-1. Site-Wide Emissions Including Permit Number 7711A (Dated August 20, 2010) and Permit-By-Rule Sources

| EPN No. | Description | Hourly Emissions (lb/hr) | | | | | Annual Emissions (tpy) | | | | |
|--|---|--------------------------|-----------------|------------------|-------|-------|------------------------|-----------------|------------------|-------|-------|
| | | NO _x | SO ₂ | PM ₁₀ | CO | VOC | NO _x | SO ₂ | PM ₁₀ | CO | VOC |
| PERMIT NUMBER 7711A SOURCES | | | | | | | | | | | |
| STILLYARD OPERATION | | | | | | | | | | | |
| HTR3 | T-1 Laminating Adhesive Bulk Storage Tank Heater Vent | 0.05 | 0.01 | 0.01 | 0.04 | 0.01 | 0.22 | 0.01 | 0.02 | 0.18 | 0.01 |
| HTR4 | T-2 Laminating Adhesive Bulk Storage Tank Heater Vent | 0.05 | 0.01 | 0.01 | 0.04 | 0.01 | 0.22 | 0.01 | 0.02 | 0.18 | 0.01 |
| HTR 5 | Asphalt Heater for T-14 and T-15 Coating Asphalt Storage Tank and Coating Asphalt Loop Feed Tank | 0.10 | 0.01 | 0.01 | 0.08 | 0.01 | 0.43 | 0.01 | 0.03 | 0.36 | 0.02 |
| BLR5 | Standby Boiler Vent | 3.73 | 0.02 | 0.28 | 3.13 | 0.20 | 0.90 | < 0.01 | 0.07 | 0.75 | 0.05 |
| 8/8A | Direct-flame Incinerator Exhaust Stack/Incinerator Exhaust through Waste Heat Boiler Stack | 1.90 | 29.35 | 2.62 | 11.34 | 0.09 | 8.31 | 128.55 | 11.46 | 49.65 | 0.37 |
| WHBLR1 | Waste Heat Recover Boiler, Natural Gas Burner Side | 0.47 | 0.01 | 0.11 | 1.24 | 0.08 | 2.06 | 0.04 | 0.48 | 5.43 | 0.35 |
| COMMON TO LINE 1 AND LINE 3 | | | | | | | | | | | |
| CFL/34 | Coalescing Filter Mist Elimination Systems Stack (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup | | | 0.63 | | 5.76 | | | 2.76 | | 25.23 |
| LINE NO. 1 OPERATION | | | | | | | | | | | |
| 1-1 | Line 1 Stabilizer Storage and Heater Baghouse Stack | | | 0.23 | | | | | 1.01 | | |
| 1-3 | Line 1 Stabilizer Use Bin Baghouse Stack | | | 0.03 | | | | | 0.13 | | |
| 1-4 | Line 1 Surfacing Section Dust Collector No. 1 Stack | | | 0.59 | | | | | 2.58 | | |
| 1-5 | Line 1 (Surfacing Section) Dust Collector No. 2 Stack | | | 0.59 | | | | | 2.58 | | |
| 1-6 | Line 1 (Surfacing Section) Dust Collector No. 3 Stack | | | 0.59 | | | | | 2.58 | | |
| COOL1 (total 3 stks) | Line 1 Cooling Section | | | 8.52 | | 1.65 | | | 37.30 | | 7.23 |
| LINE 3 OPERATION | | | | | | | | | | | |
| 25 | Sand Application Baghouse | | | 1.50 | | | | | 6.57 | | |
| 26A | Stabilizer Storage Baghouse A | | | 0.15 | | | | | 0.70 | | |
| 26B | Stabilizer Storage Baghouse B | | | 0.29 | | | | | 1.26 | | |
| 27 | Stabilizer Heater Baghouse | | | 0.09 | | | | | 0.40 | | |
| 28 | Asphalt Heater | 0.59 | < 0.01 | 0.04 | 0.50 | 0.03 | 2.60 | 0.02 | 0.20 | 2.20 | 0.10 |
| FUG1 | Plantwide Fugitive Emissions | | | 0.91 | | 0.43 | | | 3.97 | | 1.88 |
| COOL3 (total 3 stks) | Line 3 Cooling Section | | | 6.74 | | 2.76 | | | 29.52 | | 12.09 |
| HTR6 | Line 3 Stabilizer Thermal Fluid Heater Vent | 0.60 | 0.01 | 0.05 | 0.49 | 0.03 | 2.58 | 0.02 | 0.20 | 2.16 | 0.14 |
| Total Emissions from Permit Number 7711A Sources | | 7.49 | 29.43 | 23.99 | 16.86 | 11.06 | 17.32 | 128.67 | 103.84 | 60.91 | 47.48 |
| PERMIT-BY-RULE SOURCES | | | | | | | | | | | |
| HTR1 | Heatec | 0.37 | <0.01 | 0.03 | 0.31 | 0.02 | 1.62 | 0.01 | 0.13 | 1.36 | 0.09 |
| HTR7 | Asphalt flux heater | 0.46 | <0.01 | 0.03 | 0.38 | 0.03 | 2.00 | 0.01 | 0.15 | 1.68 | 0.11 |
| HTR8 | Filled coating heat exchanger heater | 0.46 | <0.01 | 0.03 | 0.38 | 0.03 | 2.00 | 0.01 | 0.15 | 1.68 | 0.11 |
| T-80 | Diesel Fuel Storage Tank | | | | | 0.38 | | | | | <0.01 |
| T-41 | Waste Oil Tank | | | | | 0.01 | | | | | <0.01 |
| Degreasers | Remote Reservoir Degreasers (5) | | | | | 0.06 | | | | | 0.25 |
| Total Emissions from Permit-By-Rule Sources | | 1.29 | 0.01 | 0.09 | 1.07 | 0.53 | 5.62 | 0.03 | 0.43 | 4.72 | 0.57 |
| TOTAL EMISSIONS FROM SITE-WIDE SOURCES | | | | | | | | | | | |
| Total Emissions from Site-Wide Sources | | 8.78 | 29.44 | 24.08 | 17.93 | 11.59 | 22.94 | 128.70 | 104.27 | 65.63 | 48.05 |

PBR §106.183 does not require registration with the TCEQ. Per PBR §106.8(c)(1)-(2) *Recordkeeping*, owners or operators of a facility authorized to be constructed via PBR must maintain a copy of each PBR and the applicable general conditions of §106.4 and maintain records containing sufficient information to demonstrate compliance with all applicable general requirements and all applicable PBR conditions. The Dallas Plant maintains all required documentation.

3. CERTIFIED OPERATING CONDITIONS

GAF is updating the previous VOC and NO_x certification for all PBR sources at the site including the following:

- Heatec (HTR1)
- Asphalt flux heater (HTR7)
- Filled coating heat exchange heater (HTR8)
- Diesel Fuel Storage Tank (T-80)
- Waste oil tank (T-41)
- Remote reservoir degreasers (Degreasers)

The maximum potential emissions of VOC and NO_x from the above sources are included in the emissions certification forms included in Attachment B with detailed emissions calculations provide in Attachment C.

ATTACHMENT B. TCEQ FORM APD-CERT

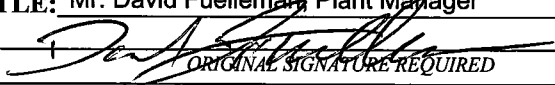


Texas Commission on Environmental Quality
Form APD – CERT
Certification of Emission Limits
(Page 1)

| | | |
|---|--|-----------------|
| I. Company and Site Information | | |
| A. Company Name: Building Materials Corporation of America | | |
| B. Responsible Official Name: David Fuelleman | | |
| Responsible Official's Title: Plant Manager | | |
| Mailing Address: 2600 Singleton Blvd. | | |
| City: Dallas | County: Dallas | |
| State: Texas | ZIP Code: 75212 | |
| Telephone: 214-637-1060 | Fax: 214-637-5202 | |
| E-mail Address: dfuelleman@gaf.com | | |
| C. Site Name: Dallas Plant | | |
| Street Address: <i>(if different from above)</i> | | |
| If "NO," street address describe physical location with driving directions: | | |
| City or nearest city: Dallas | County: Dallas | ZIP Code: 75212 |
| D. TCEQ Account Identification Number <i>(leave blank if unknown)</i> : DB-0378-S | | |
| E. TCEQ Customer Reference Number <i>(leave blank if unknown)</i> : CN602717464 | | |
| TCEQ Regulated Entity Number <i>(leave blank if unknown)</i> : RN100788959 | | |
| F. Does the site have a Title V Permit? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | |
| G. Title V Permit Number: O-2771 | | |
| H. Is this a small business? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |
| II. Attach the Following Documentations | | |
| A. Copies of a previously completed Form PI-7 or Form PI-1S and all supporting documentation. | <div style="border: 1px solid black; padding: 2px; display: inline-block;">N/A</div> | |
| B. A list of each source of air emissions at the site. | | |
| C. A summary of the certified emission rates. | | |
| D. A process description. | | |
| III. Maintain Records On Site to Demonstrate Continuing Compliance and Make the Records Available on Request | | |



Texas Commission on Environmental Quality
Form APD – CERT
Certification of Emission Limits
(Page 2)

| | |
|---|---|
| IV. Purpose of this Certification <i>(choose and complete all that are appropriate)</i> | |
| This certification is intended to establish emission rates below state and federal rule thresholds and triggers for: | |
| <input type="checkbox"/> 30 TAC § 106.4 for Permits by Rule | <input type="checkbox"/> Permit by Rule Number: _____ |
| <input type="checkbox"/> HR VOC Emissions Cap and Trade Program | <input type="checkbox"/> Emissions Banking and Trading Program (other than HRVOC) |
| <input type="checkbox"/> 30 TAC § 115 for Volatile Organic Compounds | <input type="checkbox"/> 30 TAC § 117 for Nitrogen Oxides |
| <input type="checkbox"/> 40 CFR Part 60, Subpart _____ | <input type="checkbox"/> 40 CFR Part 61, Subpart _____ |
| <input type="checkbox"/> 40 CFR Part 63, Subpart _____ | <input type="checkbox"/> Title V Permit Major Source Applicability |
| <input type="checkbox"/> Standard Permit: _____ | <input checked="" type="checkbox"/> Other: <u>Ozone Nonattainment New Source Review</u> |
| V. Requests Associated with this Certification | |
| A. Are you requesting to withdraw your Title V operating permit application? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |
| <i>If "YES," submit the original of this certification, directly to the assigned Title V permit reviewer and send a copy to the locations indicated in the Mailing Instruction below.</i> | |
| B. Are you requesting to void an issued Title V operating permit or authorization to operate under a general operating permit? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |
| <i>If "YES," submit this certification to the locations indicated in the Mailing Instructions page 9</i> | |
| C. For issued Title V permits, are you subject to Title V permitting requirements, but are submitting this certification to demonstrate that you are not subject to MACT requirements? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |
| <i>If "YES," submit this certification to the locations indicated in the Mailing Instructions page 9</i> | |
| D. For pending Title V permits, are you subject to Title V permitting requirements, but are submitting this certification to demonstrate that you are not subject to MACT requirements? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |
| <i>If "YES," submit the original of this certification directly to the assigned Title V permit reviewer and send a copy to the locations indicated in the Mailing Instructions page 9.</i> | |
| VI. Certification by Responsible Official | |
| All representations in this certification of emissions are conditions upon which the stationary source shall operate. This certification reflects the maximum emission rates for the operation of this facility. The facility will operate in compliance with all regulations of the Texas Commission on Environmental Quality and with Federal U.S. Environmental Protection Agency regulations governing air pollution. It shall be unlawful for any person to vary from such representation unless the certification is first revised. The signature below indicates that, based on information and belief formed after reasonable inquiry, the statements and information contained in the attached documents are true, accurate, and complete. | |
| NAME and TITLE: <u>Mr. David Fuelleman, Plant Manager</u> | |
| SIGNATURE: <u></u> Date: <u>5-April-2011</u> | |
| <small>ORIGINAL SIGNATURE REQUIRED</small> | |

Reminder: The original of this certification must be sent to the TCEQ in Austin and copies sent to the appropriate TCEQ Regional office and any local air pollution control programs with jurisdiction. A copy must also be maintained on site or, for sites that normally operate unattended, at an office within Texas having day-to-day operational control of the site.

TCEQ 10489 (Revised 02/10) APD-CERT Form

This form for use by facilities subject to air quality permits requirements and may be revised periodically. (APDG 5375v8)



Texas Commission on Environmental Quality
 Form APD – CERT
 Certification of Emission Limits
Attach additional pages if needed if needed.
 (Page 3)

| Emission Rate Data | | | | | | | | | |
|--------------------|---------------|------|--------------|--------------------|--------------------|---|----------------------|----------------------------------|-----------|
| FIN | Facility Name | EPN | Point Name | Authorization Type | Authorization Date | Permit or Registration Number (if applicable) | Air Contaminant Name | Maximum Certified Emission Rates | |
| | | | | | | | | Pounds/Hour | Tons/Year |
| HTR1 | Dallas Plant | HTR1 | Heatec | Permit By Rule | | 106.183 | CO | 0.31 | 1.36 |
| | | | | | | | NOx | 0.37 | 1.62 |
| | | | | | | | PM/PM10 | 0.03 | 0.13 |
| | | | | | | | SO2 | 0.002 | 0.01 |
| | | | | | | | VOC | 0.02 | 0.09 |
| HTR7 | Dallas Plant | HTR7 | Asphalt flux | Permit By Rule | | 106.183 | CO | 0.38 | 1.68 |
| | | | heater | | | | NOx | 0.15 | 0.64 |
| | | | | | | | PM/PM10 | 0.03 | 0.15 |
| | | | | | | | SO2 | <0.01 | 0.01 |
| | | | | | | | VOC | 0.03 | 0.11 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Emissions Totals: | | | | | | | | | |



Texas Commission on Environmental Quality
 Form APD – CERT
 Certification of Emission Limits
Attach additional pages if needed if needed.
 (Page 3)

| Emission Rate Data | | | | | | | | | |
|--------------------------|---------------|------------|----------------|--------------------|--------------------|---|----------------------|----------------------------------|-----------|
| FIN | Facility Name | EPN | Point Name | Authorization Type | Authorization Date | Permit or Registration Number (if applicable) | Air Contaminant Name | Maximum Certified Emission Rates | |
| | | | | | | | | Pounds/Hour | Tons/Year |
| HTR8 | Dallas Plant | HTR8 | Filled coating | Permit By Rule | | 106.183 | CO | 0.38 | 1.68 |
| | | | heater | | | | NOx | 0.15 | 0.64 |
| | | | | | | | PM/PM10 | 0.03 | 0.15 |
| | | | | | | | SO2 | <0.01 | 0.01 |
| | | | | | | | VOC | 0.03 | 0.11 |
| T-80 | Dallas Plant | T-80 | Diesel storage | Permit By Rule | | 106.472 | VOC | 0.38 | <0.01 |
| T-41 | Dallas Plant | T-41 | Waste oil tank | Permit By Rule | | 106.472 | VOC | 0.01 | <0.01 |
| Degreasers | Dallas Plant | Degreasers | Remote res | Permit By Rule | | 106.454 | VOC | 0.06 | 0.25 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Emissions Totals: | | | | | | | | NOx: 2.90 TPY; VOC: 0.58 TPY | |

ATTACHMENT C. EMISSIONS CALCULATIONS

Emission Calculations for the Asphalt Flux Heater (EPN: HTR7) and the Filled Coating Heat Exchanger Heater (EPN: HTR8) - PBR Sources

Natural Gas Combustion Emission Factors

| Reference for Emission Factors | Fuel | Units | CO | NO _x | PM ₁₀ | SO ₂ | VOC |
|--|--|-----------------------|--------|-----------------|------------------|-----------------|--------|
| AP-42, Sec. 1.4, Table 1.4-1 (7/98), Table 1.4-2 (7/98) | Natural Gas (Boilers < 100 MMBtu/hr) | lb/MMscf ¹ | 83.34 | 31.75 | 7.54 | 0.60 | 5.46 |
| | Controlled - Low NO _x Burner, Flue Gas Recirculation | lb/MMBtu ² | 0.0824 | 0.0314 | 0.0075 | 0.0006 | 0.0054 |

¹ AP-42 emission factors converted to the Dallas Facility heating value by multiplying the given emission factor by the ratio of the facility heating value to the average heating value (1,012/1,020).

² Emission factors converted from MMscf to MMBtu, based on the facility heating value of 1,012 Btu/scf.

| Heater Description | Emission Point Name (EPN) | Heat Input Rate (MMBtu/hr) ¹ | Annual Hours of Operations ² (hr/yr) | Hourly Emissions (lb/hr) | | | | | Annual Emissions (tpy) | | | | |
|--------------------------------------|------------------------------|---|---|--------------------------|-----------------|------------------|-----------------|------|------------------------|-----------------|------------------|-----------------|------|
| | | | | CO | NO _x | PM ₁₀ | SO ₂ | VOC | CO | NO _x | PM ₁₀ | SO ₂ | VOC |
| Asphalt flux heater | HTR7 | 4.65 | 8,760 | 0.38 | 0.15 | 0.03 | <0.01 | 0.03 | 1.68 | 0.64 | 0.15 | 0.01 | 0.11 |
| Filled coating heat exchanger heater | HTR8 | 4.65 | 8,760 | 0.38 | 0.15 | 0.03 | <0.01 | 0.03 | 1.68 | 0.64 | 0.15 | 0.01 | 0.11 |

¹ Provided by Mr. Doug Harris (GAF Dallas Plant) to Ms. Christine Chambers (Trinity) on Friday, May 9, 2008 via phone conversation.

² GAF does not expect to operate each heater more than 325 days per year (i.e., 7,800 hours per year). However, annual hours of operation are conservatively estimated by assuming continuous operation (i.e., 8,760 hours per year).

Sample Emissions Calculations from Asphalt flux heater for CO:

$$\text{Hourly CO Emission Rate (lb/hr)} = \frac{4.65 \text{ MMBtu}}{\text{hr}} \times \frac{0.0824 \text{ lb}}{\text{MMBtu}} = 0.38 \text{ lb/hr}$$

$$\text{Annual CO Emission Rate (tpy)} = \frac{4.65 \text{ MMBtu}}{\text{hr}} \times \frac{8,760 \text{ hr}}{\text{yr}} \times \frac{0.0824 \text{ lb}}{\text{MMBtu}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 1.68 \text{ tpy}$$